Name:

## at1110paper_practice_test (v104)

1. Expand the following expression into standard form.

$$(5x + 8)(7x + 4)$$

$35x^2 + 20x + 56x + 32$

$35x^2 + 76x + 32$

2. Solve the equation.

$$6x^2 - 11x + 16 \;=\; 4x^2 + 2x - 5$$

$2x^2 - 13x + 21 = 0$

$(2x - 7)(x - 3) = 0$

$x = \frac{7}{2} \qquad x = 3$

3. Expand the following expression into standard form.

$$(7x - 9)(7x + 9)$$

$49x^2 + 63x - 63x - 81$

$49x^2 - 81$

4. Expand the following expression into standard form.

$$(5x + 8)^2$$

$25x^2 + 40x + 40x + 64$

$25x^2 + 80x + 64$

5. Factor the expression.

$$49x^2 - 16$$

$(7x + 4)(7x - 4)$

6. Solve the equation with factoring by grouping.

$$12x^2 - 8x - 15x + 10 \;=\; 0$$

$(4x - 5)(3x - 2) = 0$

$x = \frac{5}{4}$ $\qquad$ $x = \frac{2}{3}$

7. Factor the expression.

$$x^2 + 3x - 40$$

$(x + 8)(x - 5)$

8. Solve the equation.

$$(8x + 3)(9x + 4) \;=\; 0$$

$x = \frac{-3}{8}$ $\qquad$ $x = \frac{-4}{9}$